

Virginia DEQ

RCRA Corrective Action Fact Sheet #3

Groundwater Monitoring Requirements at RCRA CA Sites

Groundwater monitoring of existing wells is required by CA permits and included in the EPA scope of work. Where no groundwater monitoring wells exist, groundwater monitoring should be required for sites where there is a documented or reasonably suspected release to the ground or subsurface that could have impacted groundwater (i.e. the migration to groundwater pathway is present). In situations where the initial site investigation indicates that no such release has occurred based on site history and available data, groundwater monitoring is not required (assuming that available data is of a quality and location that could evaluate this pathway).

If contaminated soil is present, the migration to groundwater pathway can be determined as follows:

- soil sampling at intervals from the soil surface to the seasonal water table
- soil sampling to the bottom of the impacted soil area as determined by appropriate screening methods (e.g., PID, XRF) combined with groundwater sampling

Not all releases to the ground or subsurface will necessarily be accessible (e.g., releases from piping under buildings). In such cases, groundwater monitoring downgradient of the footprint of the inaccessible area may be needed to determine whether the groundwater has been impacted.

In all cases, a site conceptual hydrogeologic model should be developed to assist in locating and designing an appropriate groundwater monitoring network. Data collected during groundwater monitoring events should demonstrate that the monitoring wells are downgradient of release areas and could determine the horizontal and vertical extent of groundwater contamination.